

CAN YOU ANSWER THESE QUESTIONS?

1. What is the basis of the traditional Jewish calendar?
2. Why is there a discrepancy between the secular dating system and the traditional one?
3. What is meant by the term: Molad Tohu, and how is it hinted at in the Torah?
4. What is the length of a lunar month?
5. How many "Ibbur" years are there in a 19 year cycle?

This and much more will be addressed in the seventh lecture of this series: "The Calendar".

To derive maximum benefit from this lecture, keep these questions in mind as you listen to the tape and read through the outline. Go back to these questions once again at the end of the lecture and see how well you answer them.

PLEASE NOTE: This outline and source book was designed as a powerful tool to help you appreciate and understand the basis of Jewish History. Although the lectures can be listened to without the use of the outline, we advise you to read the outline to enhance your comprehension. Use it as well as a handy reference guide and for quick review.

THE EPIC OF THE ETERNAL PEOPLE
Presented by Rabbi Shmuel Irons

Series I Lecture #7

THE CALENDAR

I. Basic Jewish Chronology

A. From Adam to the Destruction of the Second Temple

- 130 1) And Adam lived 130 years and begat a son . . . and called his name Seth.
Genesis 5:3
- 235 2) And Seth lived 105 years and begat Enosh. **Gen. 5:6**
- 325 3) And Enosh lived 90 years and begat Kenan. **Gen. 5:9**
- 395 4) And Kenan lived 70 years and begat Mahalalel **Gen. 5:12**
- 460 5) And Mahalalel lived 65 years and begat Yered **Gen. 5:15**
- 622 6) And Yered lived 162 years and begat Chanoch. **Gen. 5:18**
- 687 7) And Chanoch lived 65 years and begat Methushelach. **Gen. 5:21**
- 874 8) And Methushelach lived 187 years and begat Lemach. **Gen. 5:25**
- 1056 9) And Lemach lived 182 years and begat Noach. **Gen. 5:28, 29**
- 1556 10) And Noach was 500 years old; and Noach begat Shem, Ham and Yefeth.
Genesis 5:32
- 1655 11) In the six hundredth year of Noah's life, in the second month, the
seventeenth day of the month, the same day were all the fountains of the
great deep broken up, and the windows of heaven were opened.
Genesis 7:11
- 1656 12) And it came to pass in the six hundred and first year, in the first month,
the first day of the month, the waters were dried up from off the earth.
Genesis 8:13
- 1658 13) Shem was 100 years old and begat Arpachshad two years after the flood.
Genesis 11:10

- 1693 14) And Arpachshad lived 35 years and begat Shelah. **Genesis 11:12**
- 1723 15) And Shelah lived 30 years and begat Eber. **Genesis 11:14**
- 1757 16) And Eber lived 34 years and begat Peleg. **Genesis 11:16**
- 1787 17) And Peleg lived 30 years and begat Reu. **Genesis 11:18**
- 1819 18) And Reu lived 32 years and begat Serug. **Genesis 11:20**
- 1849 19) And Serug lived 30 years and begat Nahor. **Genesis 11:22**
- 1878 20) And Nahor lived 29 years and begat Terah. **Genesis 11:24**
- 1948 21) And Terah lived 70 years and begat Abram, Nahor, and Haran.
Genesis 11:26
- 2018 22) And he said unto Abram, Know of a surety that thy seed shall be a stranger in a land that is not theirs and serve them and they shall afflict them, 400 years. **Genesis 15:13**
- 2018 23) Avraham was 70 years old at the time of this covenant. **Seder Olam**
- 2048 24) And Abraham was 100 years old when his son Isaac was born unto him.
Genesis 21:5
- 2448 25) And it came to pass at the end of 430 years, even the selfsame day it came to pass, that all the hosts of the Lord went out from the land of Egypt.
Exodus 12:41
- 2928 26) And it came to pass, 480 years after the children of Israel came out of the land of Egypt, in the fourth year of Solomon's reign over Israel, . . . that he began to build the house of the Lord. **Kings I Chap. 6:1**
- 3338 27) The first Temple stood for 410 years. **Seder Olam. Bava Basra 3a**
- 3408 28) 70 years after the destruction of the first Temple, the second Temple was built. **Seder Olam. Megilah 12a**
- 3448 29) Seleuced dating "minyans hashtaros".
- 3828 30) The second Temple stood for 420 years. **Seder Olam. Bava Basra 3a**

B. Historical Dating and Calendar Dating

1)

שנת התורה

The first five days of creation are counted as another calendar year.

2)

מולד בהר"ד

The "new moon" of the first (artificially constructed) year was on Monday, 5 hours (11 O'Clock) and 204 "Chalakim" (11 minutes and 20 seconds).

3)

בראשית ברא אלקים את השמים ואת הארץ. והארץ היתה תלויה ובהו וחשך על פני תהום ורוח אלקים מרחפת על פני המים. ויאמר אלקים יהי אור ויהי אור. וירא אלקים את האור כי טוב ויבדל אלקים בין האור ובין החשך. בראשית א:א, ב, ג, ד

4) The Year תשנ"ג (5753) really means that תשנ"ב (5752) years have already passed and the 5753rd is in progress.

5) In order to convert historical years (סדר עולם) to our calendar years we must add 2 years. For instance, The Exodus (#25) should be 2450; the destruction of the second Temple (#30) should be 3830.

II. Calculating the New Moon

A. 1080 חלקים "chalakim" in an hour. Each חלק = $3/13$ seconds

B. A lunar month = 29 days 12 hours and 793 "chalakim" (44 minutes $3 \frac{1}{3}$ seconds).

C. The difference between one month and the next is 1 day 12 hours and 793 "chalakim".

D. The length of a standard twelve month lunar year is 354 days 8 hours and 876 "chalakim".

E. The difference between one year and the next is 4 days 8 hours and 876 "chalakim".

- F. The length of an "Ibbur" (thirteen month) year is 383 days 21 hours and 589 "chalakim".
- G. The difference between one year and the next after an "Ibbur" year is 5 days 21 hours and 589 "chalakim".
- H. In every 19 year cycle there is an "Ibbur" year in years 3, 6, 8, 11, 14, 17, 19; 7 years altogether.
- I. The difference between one cycle and the next is 2 days 16 hours and 595 "chalakim".
- J. To find the "molad" for Rosh Hashanah 5753 we must first calculate 1) how many full cycles have passed, and 2) how many years have passed in the current cycle.
- K. We first divide 19 into 5752 (that's how many full years have passed) and get 302 with a remainder of 14. That means that 302 full cycles have passed plus 14 in the current cycle.
- L. We then multiply 2 days 16 hours and 595 "chalakim" by 302 (the number of full cycles that have passed) and we get 812 days 6 hours and 410 "chalakim".
- M. The difference after 302 cycles is 6 hours and 410 "chalakim".
- N. 14 years consists of 9 regular lunar years and 5 "Ibbur" years.
- O. We then multiply 9 times 4 days 8 hours and 876 "chalakim" plus 5 times 5 days 21 hours and 589 "chalakim" and we get 68 days 19 hours and 29 "chalakim".
- P. The difference after 14 years is 5 days 19 hours and 29 "chalakim".
- Q. The difference after 302 cycles plus 14 years is 6 days 1 hour and 439 "chalakim".
- R. Add 1 day, 5 hours and 204 "chalakim" and we get 6 hours and 643 "chalakim" which equals the Molad for Rosh Hashanah תשנ"ג.
- S. Based on this, the Molad for "Shevat" is 4 times 1 day 12 hours 793 "chalakim" (C.) plus 6 hours and 643 "chalakim".
- T. The Molad for "Shevat" is 6 days 9 hours and 575 "chalakim" (31 minutes and 17 "chalakim") or Shabbos in the morning 3:31 A.M. and 17 "chalakim".